

REMARKS

Claims 1-37 and 41-44 were pending in the application. Claims 1, 17, 24, 29, 32 and 33 are independent claims. No new matter has been added by this amendment.

Applicants respectfully submit that the present application is in condition for allowance.

Accordingly, reconsideration and allowance of the present application are respectfully requested.

Claim Amendments

Claim 17 has been amended. Support for the amendment to claim 17 is found for example at one or more portions of claim 32 and one or more portions of page 16, line 4.

No new matter has been added by this amendment.

Claim Rejections – 35 USC § 101

The Office Action rejects claims 17-23 under 35 USC § 101.

Claim 17 has been amended.

Accordingly, reconsideration and withdrawal of the rejections is respectfully requested.

Claim Rejections – 35 USC § 112

The Office Action rejects claims 15, 16, 17 and 37 under 35 USC § 112, second paragraph.

Claim 15 recites the phrase "said low level markup allows a text-to-speech developer to convey a certain amount of information using less text". Applicants respectfully submit that such phrase is clear to one of ordinary skill in the art.

Claim 16 recites the phrase "a text-to-speech developer not having expertise in voice arts". Applicants respectfully submit that such phrase is clear to one of ordinary skill in the art.

Claims 17 and 37 have been amended.

Accordingly, reconsideration and withdrawal of the rejections is respectfully requested.

Claim Rejections – 35 USC § 103

Claims 1-33, 36, 37, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,860,064 (Henton) in view of US Patent No. 5,899,975 (Nielsen).

Reconsideration and withdrawal of the rejections is respectfully requested.

Claim 1

Independent claim 1 recites a method, comprising: identifying text to convert to speech; selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type,-said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type; marking said text to associate said text with said selected speech style sheet; and converting said text to speech having said desired speech characteristics by applying a low level markup generated by said speech style sheet.

Neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest the method of claim 1.

Henton discloses a method and apparatus for automatic generation of vocal emotion in a synthetic text-to-speech system (title). FIG. 5 is a flowchart of the graphical user interface editor to vocal emotion text-to-speech modification communication and translation (col. 5, lines 11-14). After a portion of text has been selected 501, and a particular vocal emotion has been chosen 503, the appropriate speech synthesizer values are obtained via look-up table 505, and thereby applied 507 by embedding the appropriate speech synthesizer commands in the selected text (col. 9, lines 49-54).

However, even if choosing a vocal emotion constitutes selecting a speech style sheet from a set of available speech style sheets, as is asserted in the Office Action, Henton does not teach or suggest that the asserted speech style sheet defines desired speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

For at least the reason above, Henton does not teach or suggest a method that includes selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 1.

Nielsen discloses style sheets for speech-based presentation of web pages (title). FIG. 5 is an illustration of part of a stylesheet including audio and/or voice elements (col. 6, lines 18-20). The stylesheet illustrated in FIG. 5, expands the prior art stylesheet illustrated in FIG. 3 by including, in this example, a voice presentation properties (col. 6, lines 20-23). Comparing FIG. 5 with FIG. 3, in the BODY section, properties for a voice-family and voice-pitch have been included in FIG. 5 (col. 6, lines 23-25). The voice-family property includes two values separated by a comma (col. 6, lines 25-27). The first is a named voice "Susan" and the second is a voice "woman" (col. 6, lines 27-28). If a computer presenting information in accordance with the stylesheet with FIG. 5 is

equipped with a named voice "Susan", then the voice "Susan" will be utilized to present the information (col. 6, lines 28-31). If not, a general voice "woman", universally available across all synthesizers would be utilized as a backup (col. 6, lines 31-33). The second area in which the stylesheet of FIG. 5 differs from the corresponding one in FIG. 3 is that the headings H1, H2 and H3 in addition to their font size properties, have been given voice properties (col. 6, lines 34-37). As shown in FIG. 5, text categorized as heading H1 would be presented in a voice-pitch of bass whereas text presented as heading H2 would be presented with a voice-pitch baritone (col. 6, lines 37-

However, Nielsen does not teach or suggest that the voice "Susan" or the voice "woman" are associated with the voice properties of H1.

Consequently, even if the voice "Susan" constitutes a first voice style, as asserted in the Office Action (see Office Action , page 5, line 20), and even if the voice properties of BODY (which has a voice-pitch of mezzo-soprano) constitutes a first voice type, as asserted in the Office Action (see Office Action, page 5, line 19), and even if the voice "woman" constitutes a second voice style, as asserted in the Office Action (see Office Action, page 5, lines 21-22), and even if the voice properties of H1 (which has a voice-pitch of bass) constitutes a second voice type, as asserted in the Office Action, Nielsen does not teach or suggest a speech style sheet defining speech characteristics for the asserted first voice style (i.e., "Susan") associated with the asserted second voice-type (i.e., H1, which has a voice-pitch of bass), and speech characteristics for the second voice style (i.e., "woman") associated with the second voice-type (i.e., H1, which has a voice-pitch of bass).

For at least the reasons above, Nielsen, as with Henton does not teach or suggest selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 1.

The Office Action appears to assert that it would be obvious to associate the voice "Susan" with the voice properties of H1 (which has a voice-pitch of bass) and the voice properties of H2 (which has a voice-pitch of baritone) (see Office Action, page 6, lines 1-8).

Applicants respectfully disagree.

Based on the stylesheet of FIG 5, the voice of "Susan" appears to have a voice-pitch of mezzo-soprano (see BODY, which has a voice-pitch of mezzo-soprano). If the voice-pitch was changed to bass, it would seem to reason that the resulting voice would no longer be that of "Susan". In view thereof, it appears that it would not be obvious to associate the voice "Susan" with the properties of H1 (which has a voice-pitch of bass).

Similarly, it would not be obvious to associate the voice of "Susan" with the voice properties of H2 (which has a voice-pitch of baritone).

For at least the reasons above, it appears that the combination proposed in the Office Action (see Office Action, page 6, lines 1-8) is improper.

For at least the reasons above, neither Henton, nor Nielsen nor any proper combination proposed in the Office Action teach or suggest a method that includes selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 1.

Moreover, since neither Henton, nor Nielsen nor any proper combination proposed in the Office Action teaches or suggests the recited speech style sheet, neither Henton, nor Nielsen nor any proper combination proposed in the Office Action can possibly teach or suggest marking text to associate said text with said selected speech style sheet.

Nor can Henton, or Nielsen or any proper combination proposed in the Office Action teach or suggest converting said text to speech having said desired speech characteristics by applying a low level markup generated by said speech style sheet.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest a method, comprising: identifying text to convert to speech; selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type; marking said text to associate said text with said selected speech style sheet; and converting said text to speech having said desired speech characteristics by applying a low level markup generated by said speech style sheet, as recited in claim 1.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim 17

Independent claim 17 recites an article of manufacture comprising: a computer usable medium having computer readable code embodied therein, the computer readable code defining a speech style sheet, comprising: speech characteristics for at least one voice style associated with at least one voice-type, said at least one voice style relating a high level markup of said voice-type to a low level markup of said voice-type, said speech characteristics for at least one voice style associated with said at least one voice-type including: speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

Neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest the article of claim 17.

Henton discloses a method and apparatus for automatic generation of vocal emotion in a synthetic text-to-speech system (title).

However, even if Henton discloses a type of speech style sheet, Henton does not teach or suggest that the asserted speech style sheet includes speech characteristics for at least one voice style associated with said at least one voice-type including: speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

For at least the reason above, Henton does not teach or suggest a speech style sheet that includes speech characteristics for at least one voice style associated with said at least one voice-type including: speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 17.

Nielsen discloses style sheets for speech-based presentation of web pages (title).

However, even if Nielsen discloses a type of speech style sheet, Nielsen does not teach or suggest that the asserted speech style sheet includes speech characteristics for at least one voice style associated with said at least one voice-type including: speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 17.

The Office Action appears to assert that it would be obvious to associate the voice "Susan" with the voice properties of H1 (which has a voice-pitch of bass) and the voice

properties of H2 (which has a voice-pitch of baritone) (see Office Action, page 12, lines 11-17).

Applicants respectfully disagree.

Based on the stylesheet of FIG 5, the voice of "Susan" appears to have a voice-pitch of mezzo-soprano (see BODY, which has a voice-pitch of mezzo-soprano). If the voice-pitch was changed to bass, it would seem to reason that the resulting voice would no longer be that of "Susan". In view thereof, it appears that it would not be obvious to associate the voice "Susan" with the properties of H1 (which has a voice-pitch of bass).

Similarly, it would not be obvious to associate the voice of "Susan" with the voice properties of H2 (which has a voice-pitch of baritone).

For at least the reasons above, it appears that the combination proposed in the Office Action (see Office Action, page 12, lines 11-17) is improper.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest a speech style sheet that includes speech characteristics for at least one voice style associated with said at least one voice-type including: speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 17.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest an article of manufacture comprising: a computer usable medium having computer readable code embodied therein, the computer readable code defining a speech style sheet, comprising: speech characteristics for at least one voice style associated with at least one voice-type, said at least one voice style relating a high level markup of said voice-type to a low level markup of said voice-type, said speech characteristics for at least one voice style associated with said at least one voice-type including: speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice

style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 17.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim 24

Independent claim 24 recites an apparatus, comprising: a processor having access to at least one speech style sheet, said at least one speech style sheet containing a definition of a first voice style associated with a first voice-type, and said definition relating a high level markup of said first voice-type to a low level markup of said first voice-type, wherein said processor is operative to convert said high level markup to said low level markup, the at least one speech style sheet further containing a definition of a second voice style associated with the first voice-type, a definition of the first voice style associated with the second voice-type, and a definition of the second voice style associated with the second voice-type; a user interface device for applying said at least one voice style to text associated with said voice-type, said user interface being in communication with said processor; and an output device connected to said processor for converting said text with said low level markup to speech.

Neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest the apparatus of claim 24.

Henton discloses a method and apparatus for automatic generation of vocal emotion in a synthetic text-to-speech system (title).

However, even if Henton discloses at least one speech style sheet, Henton does not teach or suggest that the asserted at least one speech style sheet contains a definition of a first voice style associated with a first voice-type, a definition of a second voice style associated with the first voice-type, a definition of the first voice style associated with the second voice-type, and a definition of the second voice style associated with the second voice-type.

Nielsen discloses style sheets for speech-based presentation of web pages (title).

However, as with Henton, Nielsen does not teach or suggest at least one speech style sheet contains a definition of a first voice style associated with a first voice-type, a definition of a second voice style associated with the first voice-type, a definition of the first voice style associated with the second voice-type, and a definition of the second voice style associated with the second voice-type.

The Office Action appears to assert that it would be obvious to associate the voice "Susan" with the voice properties of H1 (which has a voice-pitch of bass) and the voice properties of H2 (which has a voice-pitch of baritone) (see Office Action, page 16, line 21-page 17, line5).

Applicants respectfully disagree.

Based on the stylesheet of FIG 5, the voice of "Susan" appears to have a voice-pitch of mezzo-soprano (see BODY, which has a voice-pitch of mezzo-soprano). If the voice-pitch was changed to bass, it would seem to reason that the resulting voice would no longer be that of "Susan". In view thereof, it appears that it would not be obvious to associate the voice "Susan" with the properties of H1 (which has a voice-pitch of bass).

Similarly, it would not be obvious to associate the voice of "Susan" with the voice properties of H2 (which has a voice-pitch of baritone).

For at least the reasons above, it appears that the combination proposed in the Office Action (see Office Action, page 16, line 21-page 17, line5) is improper.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest an apparatus, comprising: a processor having access to at least one speech style sheet, said at least one speech style sheet containing a definition of a first voice style associated with a first voice-type, and said definition relating a high level markup of said first voice-type to a low level markup of said first voice-type, wherein said processor is operative to convert said high level markup to said low level markup, the at least one speech style sheet further containing a definition of a second voice style associated with the first voice-type, a definition of the first voice style associated with the second voice-type, and a definition

of the second voice style associated with the second voice-type; a user interface device for applying said at least one voice style to text associated with said voice-type, said user interface being in communication with said processor; and an output device connected to said processor for converting said text with said low level markup to speech, as recited in claim 24.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim 29

Independent claim 29 recites a system, comprising: a designer device for creating speech style sheets; a speech style sheet at least partially created by said designer device, said speech style sheet defining speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with the second voice-type, and speech characteristics for the second voice style associated with the second voice-type; a text-to-speech device for receiving text associated with the first voice-type, said text having a high level markup associated with said first voice style, said text-to-speech device having access to said speech style sheet and also having: a memory for storing computer executable code; and a processor for executing the program code stored in memory, wherein the program code includes; code to determine, by accessing said speech style sheet, a low level markup associated with said high level markup; and code to convert said high level markup of said text to said low level markup; and an output device for producing expressive speech using said text with said low level markup, said output device in communication with said text-to-speech device.

Neither Henton nor Nielsen nor any combination thereof proposed in the Office Action teach or suggest the system of claim 29.

Henton discloses a method and apparatus for automatic generation of vocal emotion in a synthetic text-to-speech system (title).

However, even if Henton discloses a speech style sheet, Henton does not teach or suggest that the asserted speech style sheet defines speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with the second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

Nielsen discloses style sheets for speech-based presentation of web pages (title).

However, as with Henton, Nielsen do not teach or suggest a speech style sheet that defines speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with the second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

The Office Action appears to assert that it would be obvious to associate the voice "Susan" with the voice properties of H1 (which has a voice-pitch of bass) and the voice properties of H2 (which has a voice-pitch of baritone) (see Office Action, page 20, lines 18-22).

Applicants respectfully disagree.

Based on the stylesheet of FIG 5, the voice of "Susan" appears to have a voice-pitch of mezzo-soprano (see BODY, which has a voice-pitch of mezzo-soprano). If the voice-pitch was changed to bass, it would seem to reason that the resulting voice would no longer be that of "Susan". In view thereof, it appears that it would not be obvious to associate the voice "Susan" with the properties of H1 (which has a voice-pitch of bass).

Similarly, it would not be obvious to associate the voice of "Susan" with the voice properties of H2 (which has a voice-pitch of baritone).

For at least the reasons above, it appears that the combination proposed in the Office Action (see Office Action, page 20, lines 18-22) is improper.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest a system, comprising: a designer device for creating speech style sheets; a speech style sheet at least partially

created by said designer device, said speech style sheet defining speech characteristics for a first voice style associated with a first voice-type, speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with the second voice-type, and speech characteristics for the second voice style associated with the second voice-type; a text-to-speech device for receiving text associated with the first voice-type, said text having a high level markup associated with said first voice style, said text-to-speech device having access to said speech style sheet and also having: a memory for storing computer executable code; and a processor for executing the program code stored in memory, wherein the program code includes; code to determine, by accessing said speech style sheet, a low level markup associated with said high level markup; and code to convert said high level markup of said text to said low level markup; and an output device for producing expressive speech using said text with said low level markup, said output device in communication with said text-to-speech device, as recited in claim 29.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim 32

Independent claim 32 recites an article of manufacture, comprising: a computer usable medium having computer readable program code means embodied therein for producing expressive text-to-speech, comprising: computer readable program code means for identifying text to convert to speech; computer readable program code means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type; computer readable program code means for marking said text to associate said text with said selected speech style sheet; and

computer readable program code means for converting said text to speech having said desired speech characteristics by applying a low level markup associated with said speech style sheet.

Neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest the article of manufacture of claim 32.

Henton discloses a method and apparatus for automatic generation of vocal emotion in a synthetic text-to-speech system (title).

However, even if choosing a vocal emotion constitutes selecting a speech style sheet from a set of available speech style sheets, as is asserted in the Office Action, Henton does not teach or suggest that the asserted speech style sheet defines desired speech characteristics for a first voice style associated with a first voice-type, and further defines speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

For at least the reason above, Henton does not teach or suggest an article of manufacture, comprising: a computer usable medium having computer readable program code means embodied therein for producing expressive text-to-speech, comprising: computer readable program code means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 32.

Nielsen discloses style sheets for speech-based presentation of web pages (title).

However, as with Henton, Nielsen does not teach or suggest an article of manufacture, comprising: a computer usable medium having computer readable program code means embodied therein for producing expressive text-to-speech, comprising: computer readable program code means for selecting a speech style sheet from a set of

available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 32.

The Office Action appears to assert that it would be obvious to associate the voice "Susan" with the voice properties of H1 (which has a voice-pitch of bass) and the voice properties of H2 (which has a voice-pitch of baritone) (see Office Action, page 23, lines 16-21).

Applicants respectfully disagree.

Based on the stylesheet of FIG 5, the voice of "Susan" appears to have a voice-pitch of mezzo-soprano (see BODY, which has a voice-pitch of mezzo-soprano). If the voice-pitch was changed to bass, it would seem to reason that the resulting voice would no longer be that of "Susan". In view thereof, it appears that it would not be obvious to associate the voice "Susan" with the properties of H1 (which has a voice-pitch of bass).

Similarly, it would not be obvious to associate the voice of "Susan" with the voice properties of H2 (which has a voice-pitch of baritone).

For at least the reasons above, it appears that the combination proposed in the Office Action (see Office Action, page 23, lines 16-21) is improper.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest an article of manufacture, comprising: a computer usable medium having computer readable program code means embodied therein for producing expressive text-to-speech, comprising: computer readable program code means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second

voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 32.

Moreover, since neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teaches or suggests the recited speech style sheet, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action can possibly teach or suggest computer readable program code means for marking said text to associate said text with said selected speech style sheet.

Nor can Henton or Nielsen or any proper combination thereof proposed in the Office Action teach or suggest computer readable program code means for converting said text to speech having said desired speech characteristics by applying a low level markup associated with said speech style sheet.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest an article of manufacture, comprising: a computer usable medium having computer readable program code means embodied therein for producing expressive text-to-speech, comprising: computer readable program code means for identifying text to convert to speech; computer readable program code means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type; computer readable program code means for marking said text to associate said text with said selected speech style sheet; and computer readable program code means for converting said text to speech having said desired speech characteristics by applying a low level markup associated with said speech style sheet, as recited in claim 32.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim 33

Independent claim 33 recites a system for producing expressive text-to-speech, comprising: means for identifying text to convert to speech; means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type; means for marking said text to associate said text with said selected speech style sheet; and means for converting said text to speech having said desired speech characteristics by applying a low level markup associated with said speech style sheet.

Neither Henton nor Nielsen nor any combination thereof proposed in the Office Action teach or suggest the article of manufacture of claim 33.

Henton discloses a method and apparatus for automatic generation of vocal emotion in a synthetic text-to-speech system (title).

However, even if choosing a vocal emotion constitutes selecting a speech style sheet from a set of available speech style sheets, as is asserted in the Office Action, Henton does not teach or suggest that the asserted speech style sheet defines desired speech characteristics for a first voice style associated with a first voice-type, and further defines speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type.

For at least the reason above, Henton does not teach or suggest a system for producing expressive text-to-speech, comprising: means for identifying text to convert to speech; means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech

characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 33.

Nielsen discloses style sheets for speech-based presentation of web pages (title).

However, as with Henton, Nielsen do not teach or suggest a system for producing expressive text-to-speech, comprising: means for identifying text to convert to speech; means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 33.

The Office Action appears to assert that it would be obvious to associate the voice "Susan" with the voice properties of H1 (which has a voice-pitch of bass) and the voice properties of H2 (which has a voice-pitch of baritone) (see Office Action, page 25, lines 12-18).

Applicants respectfully disagree.

Based on the stylesheet of FIG 5, the voice of "Susan" appears to have a voice-pitch of mezzo-soprano (see BODY, which has a voice-pitch of mezzo-soprano). If the voice-pitch was changed to bass, it would seem to reason that the resulting voice would no longer be that of "Susan". In view thereof, it appears that it would not be obvious to associate the voice "Susan" with the properties of H1 (which has a voice-pitch of bass).

Similarly, it would not be obvious to associate the voice of "Susan" with the voice properties of H2 (which has a voice-pitch of baritone).

For at least the reasons above, it appears that the combination proposed in the Office Action (see Office Action, page 25, lines 12-18) is improper.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest a system for

producing expressive text-to-speech, comprising: means for identifying text to convert to speech; means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type, as recited in claim 33.

Moreover, since neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teaches or suggests the recited speech style sheet, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action can possibly teach or suggest means for marking said text to associate said text with said selected speech style sheet.

Nor can Henton, or Nielsen or any proper combination proposed in the Office Action teach or suggest means for converting said text to speech having said desired speech characteristics by applying a low level markup associated with said speech style sheet.

For at least the reasons above, neither Henton nor Nielsen nor any proper combination thereof proposed in the Office Action teach or suggest a system for producing expressive text-to-speech, comprising: means for identifying text to convert to speech; means for selecting a speech style sheet from a set of available speech style sheets, said speech style sheet defining desired speech characteristics for a first voice style associated with a first voice-type, said speech style sheet further defining speech characteristics for a second voice style associated with the first voice-type, speech characteristics for the first voice style associated with a second voice-type, and speech characteristics for the second voice style associated with the second voice-type; means for marking said text to associate said text with said selected speech style sheet; and means for converting said text to speech having said desired speech characteristics by applying a low level markup associated with said speech style sheet, as recited in claim 33.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Dependent claims

Claims 2-16, 34-35, 41 and 43-44 depend from independent claim 1 and therefore should be allowed for at least the reasons set forth above with respect to independent claim 1.

Claims 18-23, 36-37 and 42 depend from independent claim 17 and therefore should be allowed for at least the reasons set forth above with respect to independent claim 17.

Claims 25-28, and 38-39 depend from independent claim 24 and therefore should be allowed for at least the reasons set forth above with respect to independent claim 24.

Claims 30-31 and 40 depend from independent claim 29 and therefore should be allowed for at least the reasons set forth above with respect to independent claim 29.

CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that the present application is in condition for allowance. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Because the reasons set forth above are sufficient to overcome the rejections set forth in the outstanding Office Action, Applicants do not address some of the assertions set forth therein and/or other possible reasons for overcoming the rejections. Nonetheless, Applicants reserve the right to address such assertions and/or to present other possible reasons for overcoming the rejections in any future paper and/or proceeding.

If the Examiner believes that a telephone interview would expedite the prosecution of this application in any way, the Examiner is cordially requested to contact the undersigned via telephone at (203) 972-0006, ext. 1014.

Respectfully submitted,

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Date

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